

DIRECT TESTIMONY OF

BRANDON S. BICKLEY

ON BEHALF OF

THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF

DOCKET NO. 2020-43-E

IN RE: APPLICATION OF DOMINION ENERGY SOUTH CAROLINA, INC. FOR A

CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC

CONVENIENCE AND NECESSITY FOR THE CONSTRUCTION AND OPERATION

OF THE TOOLEBECK – AIKEN 230 KV TIE AND SEGMENTS OF THE

GRANITEVILLE #2 – TOOLEBECK 230 KV AND TOOLEBECK – SOUTH AUGUSTA

230 KV TIE, AND ASSOCIATED FACILITIES

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.

A. My name is Brandon S. Bickley. My business address is 1401 Main Street, Suite 900, Columbia, South Carolina 29201. I am employed by the South Carolina Office of Regulatory Staff (“ORS”) in the Energy Operations Department as a Regulatory Analyst.

Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A. I received a Bachelor of Science Degree with a major in Mechanical Engineering from the University of South Carolina in 2010. From 2010 to 2013, I was employed as a Nuclear Engineer, Reactor Fuel Safety Officer, and Shift Refueling Engineer at Norfolk Naval Shipyard. In that capacity, I performed engineering and operational duties in support of the United States Navy related to reactor servicing, reactor fuel, special nuclear material, special nuclear projects, security, and safety. From 2013 to 2017, I was employed as an

1 Inspections, Tests, Analyses, and Acceptance Criteria (“ITAAC”) Engineer with South
2 Carolina Electric & Gas Company (“SCE&G”). In that capacity, I performed ITAAC
3 reviews and construction oversight for SCE&G. From 2017 to 2019, I was employed by
4 Savannah River Remediation as a Senior Engineer A. In that capacity, I performed systems
5 engineering duties in support of the Defense Waste Processing Facility for Savannah River
6 Remediation. I began my employment with ORS as a Regulatory Analyst in July 2019.

7 **Q. HAVE YOU TESTIFIED BEFORE THE PUBLIC SERVICE COMMISSION OF**
8 **SOUTH CAROLINA (“COMMISSION”)?**

9 **A.** Yes. I have previously testified before the Commission.

10 **Q. WHAT IS THE MISSION OF THE OFFICE OF REGULATORY STAFF?**

11 **A.** ORS represents the public interest as defined by S.C. Code Ann. § 58-4-10 as:

12 [T]he concerns of the using and consuming public with respect to public
13 utility services, regardless of the class of customer, and preservation of
14 continued investment in and maintenance of utility facilities so as to provide
15 reliable and high-quality utility services.

16 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

17 **A.** The purpose of my testimony is to provide the results of ORS’s review of the
18 Application (“Application”) of Dominion Energy South Carolina, Inc. (“DESC” or
19 “Company”) for a Certificate of Environmental Compatibility and Public Convenience and
20 Necessity (“Certificate”) filed on February 5, 2020 to construct and operate one 230
21 kilovolt (“kV”) transmission line and two 230 kV line segments (“Proposed Lines”) and
22 associated facilities in Aiken County, South Carolina. The Application was filed pursuant
23 to S.C. Code Ann. § 58-33-10 *et seq.* (2015) (“Siting Act”) and S.C. Code Ann. Regs. 103-
24 304 (2012).

25 **Q. WAS THE REVIEW PERFORMED BY YOU OR UNDER YOUR SUPERVISION?**

A. Yes, the review to which I testify was performed by me or under my supervision.

Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF THE PROPOSED TRANSMISSION FACILITIES.

A. The first of the proposed facilities is a 230 kV transmission line extending approximately 7.2 miles from the Company's existing Toolebeck Switching Station in Aiken County, South Carolina to the South Carolina Public Service Authority ("SCPSA" or "Santee Cooper") Interconnection Point approximately 0.7 miles east of Santee Cooper's existing Aiken Substation in Aiken County, South Carolina. The Company proposed that this 230 kV transmission line be a tie line connecting the DESC and Santee Cooper electrical transmission systems. Upon completion, the proposed line would be called the Toolebeck – Aiken 230 kV Tie. It will be owned and operated by DESC and would be primarily built on existing DESC right-of-way ("ROW"). The line will then continue another 0.7 miles from the Santee Cooper Interconnection Point to Santee Cooper's Aiken Substation. This 0.7-mile segment of line will be built, owned, and operated by Santee Cooper.

The second of the proposed facilities concerns the existing Graniteville #2 – South Augusta 230 kV Tie that connects the DESC and Southern Company electrical transmission systems. The Company proposes that the Graniteville #2 – South Augusta 230 kV Tie be folded into the Toolebeck Switching Station in Aiken County, South Carolina. The fold-in would run on approximately 10.5 miles of existing ROW and approximately 0.1 miles of new ROW from the existing Urquhart Junction approximately ten (10) miles southwest of Aiken, South Carolina and six (6) miles east of the Savannah River to the Toolebeck Switching Station in Aiken County, South Carolina. Upon

1 completion, these two (2) proposed lines would be renamed the Graniteville #2 –
2 Toolebeck 230 kV and Toolebeck – South Augusta 230 kV Tie.

3 The Company also applied to construct associated facilities to be added to DESC's
4 transmission system, specifically the 230 kV side of the Toolebeck Switching Station.
5 Currently, the Toolebeck Switching Station only has 115 kV capability, but the Company
6 proposes adding 230 kV capability by adding a bus, three (3) 230 kV line terminals, and
7 multiple 230 kV power circuit breakers. Upon completion of the upgrades, the Toolebeck
8 Switching Station will be renamed the Toolebeck Transmission Substation.

9 **Q. WHAT IS YOUR UNDERSTANDING OF THE NEED FOR THE PROPOSED**
10 **LINES AND ASSOCIATED FACILITIES?**

11 **A.** The Company's Transmission Planning studies indicate that as early as 2022, heavy
12 electrical loading on existing Aiken area electrical transmission outlet lines could occur
13 due to certain contingencies and scenarios. The Company stated that since 2015, solar
14 generation on the DESC system has accelerated and increased rapidly. Approximately 348
15 megawatts ("MWs") are currently impacting the greater Aiken area. In addition to peak-
16 load studies, the Company has had to consider shoulder load and day-time minimum
17 ("DTM") load periods. Additionally, the schedules for Southern Company's Vogtle Units
18 3 and 4 ("Vogtle Units") must be considered. Studies including the output from the Vogtle
19 Units (an addition of approximately 2,200 MWs) as well as having solar generation fully
20 dispatched in the shoulder and DTM periods indicated several contingencies resulting in
21 significant electrical overloading on the DESC system in Aiken. These contingencies
22 could potentially overwhelm the DESC 115 kV transmission system, have facilities exceed
23 thermal ratings, and negatively impact DESC's ability to operate certain facilities.

The Company adheres to the North American Electric Reliability Corporation's ("NERC") Transmission Planning Standards, as well as its own Long Range Planning Criteria, to determine the need for new transmission facilities. By applying these standards and criteria to the electrical system, the Company determined additional support was necessary, and the Proposed Lines were the most appropriate solution. The Proposed Lines will ensure that the Company's system remains in compliance with NERC standards and its own Long Range Planning Criteria.

Q. DID THE COMPANY CONSIDER ANY SCENARIOS TO CONSTRUCTING THE PROPOSED TRANSMISSION FACILITIES?

A. Yes. The Company evaluated six (6) scenarios to address overloading in the Aiken area. These scenarios included rebuilding transmission lines, construction of new transmission lines, and construction of a new transmission switching station. Ultimately, the Company determined that five (5) of the six (6) scenarios were not feasible due to the time constraints, cost, stress on operation of the DESC transmission system, difficulty with construction, and potential issues with ROW.

Q. PLEASE DESCRIBE THE INFORMATION THE SITING ACT REQUIRES IN AN APPLICATION FOR A CERTIFICATE.

A. The Siting Act directs that an application contains a description of the location and the major utility facility(ies) to be built; a summary of any studies that have been made of the environmental impact of the facility(ies); a statement explaining the need for the facility(ies); and such other information as the applicant may consider relevant or as the Commission may require.

Q. DOES THE APPLICATION CONTAIN THIS INFORMATION?

1 **A.** Yes. A description of the facilities and their locations is presented, as well as siting
2 and environmental reports including a description of the intended use and need for the
3 facilities.

4 **Q. WHAT IS THE PROBABLE ENVIRONMENTAL IMPACT OF THE**
5 **TRANSMISSION LINES?**

6 **A.** The Company conducted a Transmission Line Siting and Environmental Report
7 (“Study”) to determine the environmental impact of the Proposed Lines. The Study takes
8 into consideration the effect of the Proposed Lines on the environment as well as cultural,
9 land use, and scenic resources. The Study results indicate the Proposed Lines would not
10 have a significant impact on the environment. The Study also states that impact on cultural,
11 land use, and scenic resources are minimized by the proposed routes.

12 As part of the review of the Company’s Application, ORS reached out to the South
13 Carolina Department of Health and Environmental Control (“DHEC”), the South Carolina
14 Department of Natural Resources (“DNR”), and the South Carolina Department of Parks,
15 Recreation and Tourism (“PRT”). PRT informed ORS on March 5, 2020 that it had
16 reviewed Docket No. 2020-43-E and does not plan on submitting comments or testimony
17 in the proceeding. From its review and correspondence with PRT, ORS concluded that the
18 Study adequately addresses the environmental impacts of the Proposed Lines.

19 **Q. HOW WILL THE PROPOSED LINES SERVE THE INTEREST OF SYSTEM**
20 **ECONOMY AND RELIABILITY?**

21 **A.** The Company indicates in its Application, as well as in testimony, the Proposed
22 Lines provide the most cost effective manner to serve the system and minimize the impacts
23 to the environment, land use, cultural resources, and aesthetics. ORS concluded that the

Proposed Lines will be designed to NERC standards and will enhance the reliability of DESC's system.

Q. DOES THE COMPANY PROVIDE REASONABLE ASSURANCE THAT THE PROPOSED FACILITIES WILL CONFORM TO APPLICABLE STATE AND LOCAL LAWS AND REGULATIONS?

A. Yes. In the Application and testimony, the Company affirms it will conform to all applicable state and local laws and regulations as they pertain to the Proposed Lines and associated facilities.

Q. WERE ANY COMMENTS FILED IN THIS DOCKET PERTAINING TO THE COMPANY'S REQUEST FOR A CERTIFICATE FOR THE TRANSMISSION LINES?

A. No.

Q. HAS THE COMPANY SECURED THE NECESSARY RIGHTS-OF-WAY ALONG THE TRANSMISSION LINE ROUTES?

A. No. The Company has informed ORS that the new ROW "resides on four non-DESC-owned properties" totaling approximately 4.82 acres. DESC has further indicated that two (2) of these four (4) properties have been acquired by DESC. For the remaining two (2) properties, DESC has stated that it has engaged in "high level and general" discussions pending more detailed discussions with property owners once appraisals for the properties are complete. DESC noted that, as to one (1) of these two (2) remaining properties, "if the Company is unable to reach terms with the property owner, the Company may need to initiate a condemnation action."¹

¹ Response to Electric Request #2, Question 2.

Q. HOW WILL THIS PROJECT ALLOW THE COMPANY TO CONTINUE TO PROVIDE RELIABLE AND HIGH QUALITY UTILITY SERVICE IN SOUTH CAROLINA?

A. The construction of the Proposed Lines and associated facilities will enhance the reliability of the electrical system in growing areas of the Company's service territory and will help provide reliable and high quality service for customers. The Company indicates in its Application, as well as in testimony, that the Proposed Lines should distribute the flow of power more reliably and evenly into the DESC system, prevent future excessive loading conditions, and increase the transfer capacity for DESC's electrical transmission system to all interconnected utilities.

Q. WILL PUBLIC CONVENIENCE AND NECESSITY BE SERVED BY THE TRANSMISSION LINES PROPOSED IN THE APPLICATION?

A. Yes. ORS's review concluded that the Proposed Lines and associated facilities will result in minimal impact to the environment and will serve the interests of system economy and reliability. The Proposed Lines and associated facilities will support the Company in providing reliable electric service to its customers in DESC's Aiken-area service territory.

Q. WILL YOU UPDATE YOUR TESTIMONY BASED ON INFORMATION THAT BECOMES AVAILABLE?

A. Yes. ORS reserves the right to revise its recommendations via supplemental testimony should new information not previously provided by the Company, or other sources become available.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.